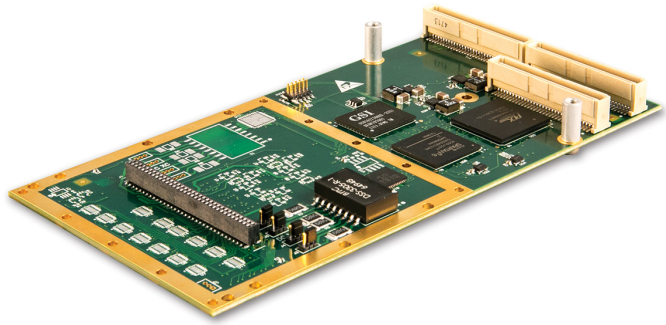
GE
Intelligent Platforms



RP-708

ARINC 708 PMC Module

Features

- Two independent ARINC 708 channels
- ARINC 708 record and playback capability
- Programmable frame bit count
- Programmable sweep frame count
- Programmable frame data buffer storage
- Concurrent receive and transmit of ARINC 708 frames
- Short/long frame size and start/stop sync inversion transmit error injection
- Ruggedized, conductively cooled version coming soon
- Conformal Coating
- 66/33 MHz PCI and PCI-X® bus operation
- Advanced, high-level software API for 32-bit/64-bit Microsoft® Windows® 7, Vista® and XP, VxWorks®, Linux®, and INTEGRITY® operating system included.
- API included in C source code
- Support for LabVIEW™ and the LabVIEW Real-Time operating system
- Available on multiple platforms (Native PMC, PCI, PCIe, VME, VXI and CompactPCI)

Hardware

The RP-708 is a two-channel ARINC 708 weather radar display data bus PMC module interface, supporting variable frame sizes for embedded applications, simulation and test. GE Intelligent Platforms' provides integrated support for this module on PCI, PCIe, CompactPCI, VME, VXI and native PMC platforms.

Each RP-708 channel can be configured as two transmit channels, two receive channels, or one transmit channel and one receive channel simultaneously.

RP-708 channel features include programmable frame size and buffer storage capacity. Specialized receive features such as frame time-tagging and error detection of short/long frames are supported, as well as specialized transmit features such as programmable frame gap duration, multiple sweep buffering, sweep scheduling, and error injection including short/long frame size and start/stop sync inversion. With a programmable frame size, the RP-708 is useful for a wide range of 1 MHz Manchester-encoded applications.

The standard RP-708 configuration has a front bezel connector with a transition cable to two twin-ax cable jacks. A configuration with only the P14 I/O is also available.

Software

An easy-to-use, high-level software API (Application Programming Interface), is included with support for Microsoft® 32-bit/64-bit Windows 7, Vista and XP, VxWorks, Linux, and Integrity. The API is also provided in C source code with accompanying Microsoft® Visual Studio® Projects to facilitate seamless integration into modern application environments. Additional support is included for LabVIEW™ and LabVIEW Real-Time development.

RP-708 – ARINC 708 PMC Module

Specifications

Features
- Number of ARINC 708 channels: 2
- Frame Size: Programmable (limited only by channel buffer memory allocation)
- Data buffer: 1 MByte Programmable
- Bus speed: 1 MHz
- Jumper-selectable transformer/direct coupling
- Onboard temperature sensor

Receive Features
- Frame time tagging: 48-bit, 1 µsec timer
- Error detection: Short/long frame

Transmit Features
- Sweep Transmit Modes include variable size sweep, single/multiple sweep, periodic/aperiodic sweep
- Frame Transmit Modes include variable size frame and programmable frame gap
- Error injection: Short/long frame, inverted start/stop sync

Software
- API
  - Includes high-level API for 32-bit/64-bit Windows 7, Vista, and XP, VxWorks, Linux, and Integrity O/S.
  - Source code for API library included
- Includes support for LabVIEW™ and LabVIEW Real Time

Physical
- PMC Mezzanine Card (74mm x 149 mm without bezel)
- Front bezel and P14 mezzanine connector I/O
- Includes transition cable when configured with front I/O

Environmental
- Weight: 1.8 oz (RP-708-C), 3.1 oz (RP-708 with front I/O)
- Ambient operating environment -40°C to +75°C with 600 feet/min airflow over the enclosure
- Conduction cooled operating temperature range, host mating surface limits -40°C to +75°C
- Storage temperature range: -55°C to +100°C
- MTBF: 2,220,766 hours (+25°C ambient, ground benign)

Power Usage
- +5 VDC: 784 mA, both channels transmitting at 97% bus duty cycle into 78 ohm loads.

PCI Signal Compatibility
- Universal (5V or 3.3V)
- 66/33 MHz PCI bus operation

Ordering Information

RP-708	Two channel ARINC 708 PMC Module, ROHS Compliant
RP-708-K	Two channel ARINC 708 PMC Card, Conformal Coated, ROHS Compliant
RP-708-3	Two channel ARINC 708 3U CompactPCI Card (PMC On Carrier) with front I/O, ROHS Compliant
RP-708-U4	Two channel ARINC 708 4 lane PCI Express Card (PMC On Carrier), ROHS Compliant
RP-708-X	Two channel ARINC 708 PCI Card (PMC On Carrier), ROHS Compliant

About GE Intelligent Platforms

GE Intelligent Platforms is a General Electric (NYSE: GE) company, headquartered in Charlottesville, VA and part of GE Energy Management. The company's Military/Aerospace business, headquartered in Huntsville, AL, and Towcester, England, provides one of the industry's broadest ranges of high performance, rugged, SWaP-optimized embedded computing platforms. Backed by programs that provide responsive customer support and minimize long term cost of ownership for multi-year programs, GE's solutions are designed to help customers minimize program risk and cost, and to speed time-to-market. For more information, visit defense.ge-ip.com.

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